

Title (en)

GEAR SHIFTING COUPLING FOR A VEHICLE TRANSMISSION

Title (de)

GANGSCHALTKUPPLUNG FÜR EIN FAHRZEUGGETRIEBE

Title (fr)

EMBRAYAGE DE CHANGEMENT DE VITESSES POUR BOÎTE DE VITESSES DE VÉHICULE

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Application

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Abstract (en)

[origin: WO2019115215A1] The invention relates to a gear shifting coupling for a vehicle transmission, comprising a transmission shaft (3) having a shaft-fixed synchronizing body (9), on the external teeth (11) of which a sliding sleeve (13) is axially guided by means of the internal teeth (15) of the sliding sleeve, wherein: the sliding sleeve (13) is brought into tooth engagement with external teeth (17) of a free gear (5, 7) in an axial movement in a shifting state, in order to establish torque transfer between the transmission shaft (3) and the free gear (5, 7); the tooth engagement between the sliding sleeve internal teeth (15) and the free gear external teeth (17) has play, specifically a tooth flank play (Δz); and in the event of torque transfer, the tooth flanks (43, 45) of the internal teeth (15) of the sliding sleeve (13) and of the external teeth (17) of the free gear (5, 7) that face each other come into contact with each other, the rotational play (Δz) being exhausted. According to the invention, at least one damping spring (31) acts between the sliding sleeve (13) and the free gear (5, 7), by means of which damping spring a contacting movement of the tooth flanks (43, 45) that face each other is damped.

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